

Experimental Potential Storm Surge Flooding Map

Part I - Mission Connection

a. Product Description - The Potential Storm Surge Flooding Map is an experimental product from the National Hurricane Center (NHC). It provides valuable information on the potential storm surge flooding for areas along the Gulf and East Coast of the United States at risk from storm surge during a tropical cyclone event.

The experimental Potential Storm Surge Flooding Map will show:

- Geographical areas where inundation from storm surge could occur.
- How high above ground the water could reach in those areas.

Areas of flooding on the map are represented in different colors based on water level:

- Red : > 9 feet above ground
- Orange: > 6 feet above ground
- Yellow: > 3 feet above ground
- Blue: up to 3 feet above ground

The map takes into account:

- Flooding due to storm surge from the ocean, including adjoining tidal rivers, sounds, and bays
- Normal astronomical tides
- Land elevation
- Uncertainties in the track, landfall location, intensity, forward speed, and size of the cyclone

The map does not take into account wave action, freshwater flooding from rainfall, flooding inside levees and overtopping of levees.

The map represents the storm surge heights that a person should prepare for before a storm, given the uncertainties in the forecast. The map shows a reasonable estimate of worst-case scenario flooding of normally dry land at particular locations due to storm surge. There is a 1-in-10 chance that the storm surge flooding at any particular location could be higher than the values shown on the map.

b. Purpose – The map represents a reasonable estimate of worst-case scenario flooding of normally dry land due to storm surge. The map provides information which enables users to make decisions related to the protection of life and property.

c. Audience – Federal, state, and local government agencies, media, and the general public.

d. Presentation Format – Online graphic can be found at: <http://www.nhc.noaa.gov>

e. Feedback Method - Continuous feedback is available via the following web page:

<http://www.nws.noaa.gov/survey/nws-survey.php?code=PSSFm>

Technical questions may be addressed to:

National Hurricane Center
Attn: Jamie Rhome
11691 SW 17th Street
Miami, FL 33165-2149
or e-mail to: jamie.r.rhome@noaa.gov

Policy questions may be addressed to:

National Weather Service
Attn: John F. Kuhn
W/OS21
Marine and Coastal Services Branch
1325 East West Highway
Silver Spring, MD 20910
or e-mail to: john.f.kuhn@noaa.gov

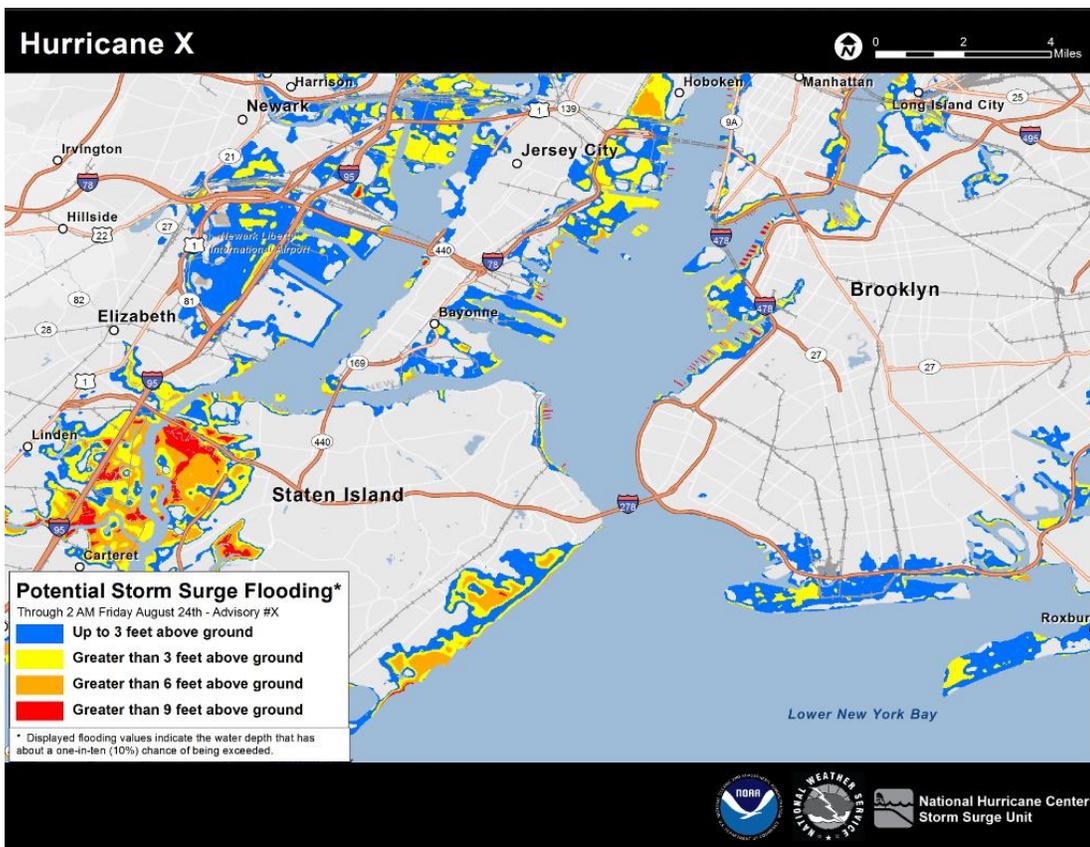
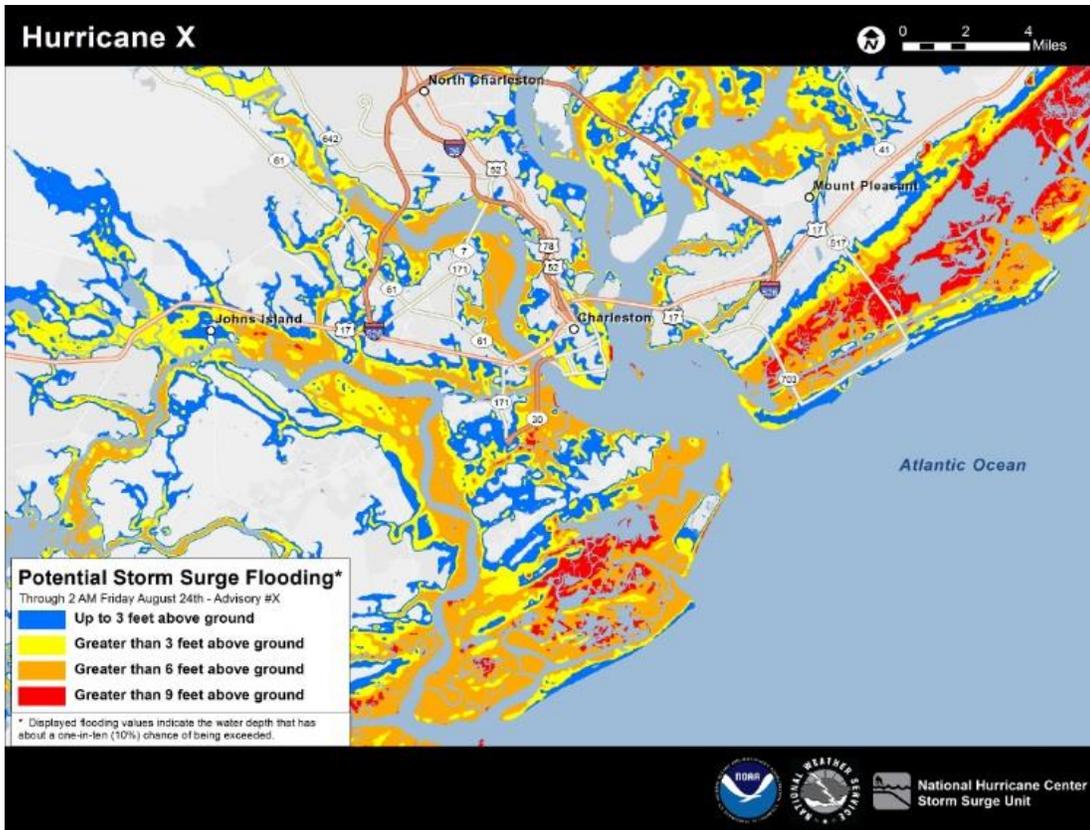
Part II - Technical Description

- a. Format & Science Basis - The map is based on the forecast movement and intensity of the current tropical storm or hurricane and it takes into account historic forecast errors. The map represents a reasonable estimate of worst-case scenario flooding of normally dry land due to storm surge. There is a 1-in-10 chance that storm surge flooding at any particular location could be higher than the values shown on the map. The map is created from multiple runs of the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model.
- b. Product Availability - NHC will release the initial map with the first issuance of a hurricane watch or warning or, in some special cases, a tropical storm watch or warning, for any portion of the Gulf or East Coast of the United States (anytime within 48 hours of the anticipated onset of tropical storm force winds). The map is subject to change every six hours in association with every new NHC full advisory package. The experimental map will be available approximately 45 to 60 minutes following the advisory release.

Static examples of the product are available at: <http://www.nhc.noaa.gov>

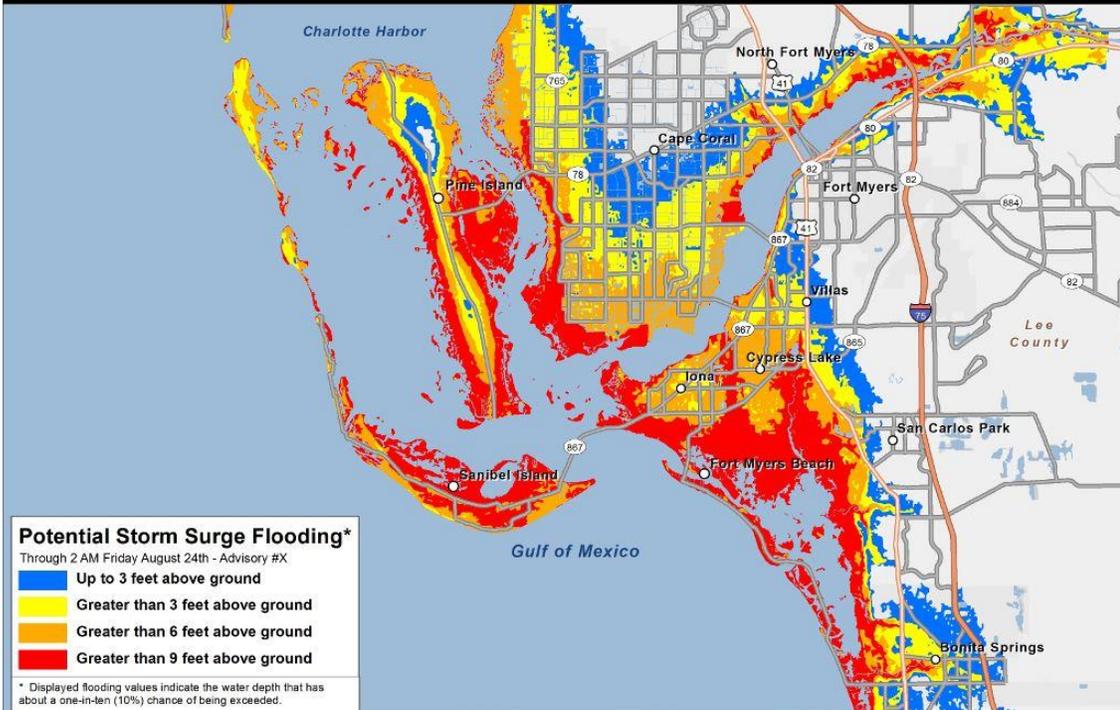
- c. Additional Information - A full description of other NWS Tropical Cyclone Weather Services Program products is provided in NWS Instruction 10-601, which is available on the Internet at: <http://www.nws.noaa.gov/directives/010/010.htm>.

Below are static examples of the experimental Potential Storm Surge Inundation Map. Note that the product will be interactive with pan and zoom capability.



Hurricane X

0 1 2 4 6 Miles



Potential Storm Surge Flooding*
Through 2 AM Friday August 24th - Advisory #X

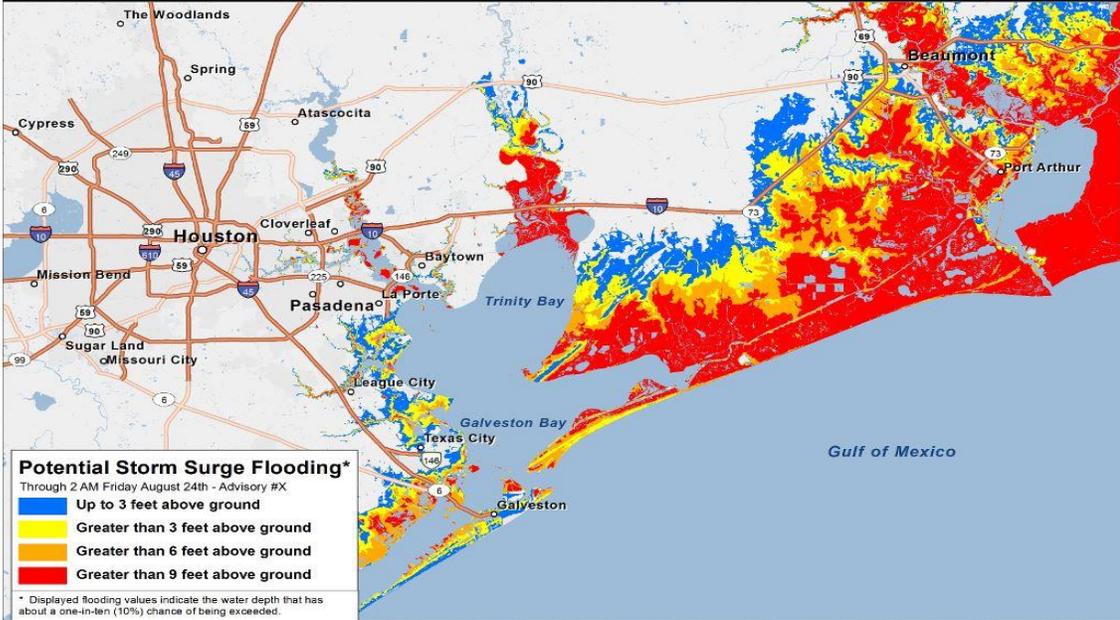
- Up to 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground

* Displayed flooding values indicate the water depth that has about a one-in-ten (10%) chance of being exceeded.



Hurricane X

0 6 12 18 Miles



Potential Storm Surge Flooding*
Through 2 AM Friday August 24th - Advisory #X

- Up to 3 feet above ground
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